

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 5270-BRTN-1

Investigation into Least-Cost)
Investments, Energy Efficiency,)
Conservation and Management of)
Demand for Energy In Re: Barton)
Village Electric Department's)
Integrated Resource Plan filing)

Hearing at
Montpelier, Vermont
November 17, 1995

Order entered: May 28, 1996

PRESENT: Paul Peterson, Esq., Hearing Officer

APPEARANCES: William B. Piper, Esq.
Primmer & Piper, P.C.
for Barton Village, Inc. Electric Department

Laura Scanlan Beliveau, Esq.
for the Vermont Department of Public Service

TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	PROCEDURAL HISTORY	3
III.	FINDINGS OF FACT	4
	A. Load Forecast	4
	B. Supply Resources	5
	C. Demand-Side Management	5
	<i>i.</i> Residential Direct Install	6
	<i>ii.</i> Residential New Construction	6
	<i>iii.</i> Small Commercial Retrofit Program	6
	<i>iv.</i> Farm Program	7
	<i>v.</i> Commercial New Construction	7
	<i>vi.</i> Residential High-Use	7
	<i>vii.</i> Commercial Remodeling and Equipment Replacement	8
	<i>viii.</i> Residential "Lost Opportunity" Program	8
	<i>ix.</i> Other DSM Matters	8
	D. Transmission and Distribution	9
	E. Other Findings	9
IV.	DISCUSSION	9
V.	ORDER	12

I. INTRODUCTION

This Proposal for Decision ("PFD") recommends that the Public Service Board ("Board") approve the Integrated Resource Plan ("IRP") of Barton Village, Inc. Electric Department ("Barton") pursuant to a Stipulation in this Docket filed by Barton and the Department of Public Service ("Department" or "DPS"). As filed and updated, Barton anticipates that implementation of the energy efficiency programs proposed in its IRP will produce peak demand savings of 398 kilowatts ("KW") and energy savings of 5,341 megawatt hours ("MWHs") through the year 2,000. Barton anticipates that cost-effective demand-side management ("DSM") programs will allow the utility and its customers to reduce energy consumption while providing positive net societal benefits. The parties agree that Barton's IRP, as modified by the Stipulation, meets the requirements of 30 V.S.A. § 218c and complies with the Board's Orders in Docket No. 5270 and the DPS's Twenty-Year Plan. I recommend that the Board approve this IRP subject to Barton's compliance with the conditions and agreements incorporated in the Stipulation.

II. PROCEDURAL HISTORY

Barton filed this IRP on December 19, 1994. This filing was an update to Barton's IRP originally filed on June 18, 1991. Revisions were made to Barton's IRP over the interim period as the DPS and Barton had informal discussions regarding Barton's IRP.

Status conferences were held on February 16, and September 7, 1995, at which time a schedule was set for proceeding in this Docket. At the September 7 status conference, Barton, the DPS, and the three other utilities represented by the Metrix, Inc., consulting firm agreed to hold consolidated technical hearings in their respective IRP Dockets.¹ Prior to the technical hearing, the parties prefiled testimony on several issues. However, the parties filed a draft stipulation prior to the technical hearing, and a fully executed Stipulation at that hearing, resolving all outstanding issues regarding Barton's IRP. An evidentiary hearing on the Stipulation was held on November 17, 1995.

On December 8, 1995, the parties filed waivers of the right granted under 3 V.S.A.

1. The other utilities represented by Metrix, Inc., include Village of Johnson Electric Department, Village of Orleans Electric Department, and Town of Readsboro Electric Department.

§ 811 to comment or present argument on the proposal for decision in this Docket.

II. FINDINGS OF FACT

A. Load Forecast

1. Barton currently has approximately 1,850 customers, 1,700 of whom are residential customers. Barton Annual Report, 1994.²

2. Barton projects a system peak of 3,731 KW and energy consumption of 18,927 MWH in the year 2000. Exh. Barton A, Sec. 3.

3. Barton has agreed to make the following improvements to its forecasting methodology for its next IRP (or for any forecast that is to be used as the basis to acquire long-term resources):

- (a) Barton will utilize more refined load forecasting techniques, which include the use of appropriate econometric or end-use methods and uncertainty analyses;
- (b) Barton will avoid using forecast methods that are simply extrapolation techniques;
- (c) Barton will take into account current and future developments, such as appliance efficiency standards and economic development, that are highly likely to affect electricity demand, but that are not fully reflected in historical data;
- (d) Barton will provide more extensive documentation and contextual information to support the forecast, including but not limited to documentation which explains the methodology, analyses, basic assumptions, data inputs, and uncertainty factors related to the load forecast;
- (e) Barton will conform the load forecast to the requirements of the *Vermont Twenty-Year Electric Plan* (December, 1994) regarding Integrated Resource Planning Guidelines (Chapter 8).

Stip. at ¶ 2.

B. Supply Resources

4. Barton has agreed to the revised assumptions and methodologies described in Attachment I to the Stipulation and will submit a Supply Analysis reflecting the

2. Pursuant to 3 V.S.A. § 810(4), I take official notice of Bartons' 1994 Annual Report, filed with the Board on 6/15/95.

new assumptions and methodologies as a compliance filing within fifteen days of the date of the Stipulation, by November 22, 1995.³ Stip. at ¶ 4.

5. Barton will immediately rescreen the farm audits it has already performed using the figures resulting from the revised Supply Analysis. Stip. at ¶ 5.

6. Barton will develop values for T&D avoided costs to be submitted as a compliance filing within fifteen days of the date of the Stipulation, by November 22, 1995.⁴ Stip. at ¶ 6.

7. Barton will calculate new line loss adjustments for the five costing periods: summer, winter, peak, off-peak, and capacity. These calculations will be submitted as a compliance filing within fifteen days of the date of the Stipulation, by November 22, 1995.⁵ Stip. at ¶ 7.

8. Barton has agreed not to rely on its load forecast in this IRP for any future supply acquisitions that require approval under 30 V.S.A. § 248. Stip. at ¶ 3.

9. Barton will use its load forecast for identifying avoided costs in order to determine cost-effective T&D and DSM measures and programs. Stip. at ¶ 3.

C. Demand-Side Management

10. Barton estimates that cost-effective DSM programs will result in savings to Barton's ratepayers of 398 KW and 1,161 MWHs in the year 2,000, or ten percent of anticipated peak load and six percent of anticipated energy requirements. Finding 2, above; Barton filing, 4/12/96.

11. Barton agrees to design or adopt and implement programs, as outlined below, that contain strategies to acquire cost-effective DSM resources available from commercial remodeling and equipment replacement, residential high-use customer fuel-switching, and low income high-use residential customers. Stip. at ¶ 14.

12. Barton has agreed to implement the DSM program designs contained in its IRP with the modifications identified for each program below using the revised avoided costs developed pursuant to Paragraph 4 of the Stipulation. Stip. at ¶ 8.

13. The cost-effectiveness of Barton's proposed DSM programs cannot be determined at this time. The DPS states that there are methodological errors in Barton's compliance filings which prevent a precise calculation of cost-effectiveness. DPS letter of 3/27/96.

(i.) Residential Direct Install (Moderate Use) Program

3. Barton submitted this filing on 12/26/95.

4. Barton submitted this filing on 12/26/95.

5. Barton submitted this filing on 12/26/95.

14. Barton will provide four cost-effective compact florescent bulbs at each site for \$1.00 per bulb and will offer a 50% incentive for all additional cost-effective bulbs. Stip. at ¶ 9.

15. Barton has agreed to use a three-hour burn-time as a threshold for recommending the installation of compact florescent bulbs. Id.

_____16. Program implementation will be completed by January 1, 1997, or Barton will submit a compliance filing on that date explaining the reasons for not meeting the deadline. Id.

(ii.) Residential New Construction

17. Barton agrees to implement the program design contained in the IRP. Stip. at ¶ 10.

18. Barton has agreed that if its residential new construction program is not successful in reaching a 50% market penetration of new residential connections and electrical efficiency savings as of January 1, 1997, it will implement the assessment fee-type residential new construction program design being implemented by Washington Electric Cooperative, Inc. ("WEC"), provided that the WEC program in 1995 shows a 50% market penetration and electrical efficiency savings from its new residential hookups. Stip. at ¶ 10.

(iii.) Small Commercial Retrofit Program

19. Barton has agreed not to implement the program design contained in its IRP. Stip. at ¶ 11.

20. Barton will submit a commercial equipment replacement and remodeling program

design by December 15, 1995, that is consistent with the terms of the Stipulation.⁶
Stip. at

¶ 11.

(iv.) Farm Program

21. Barton has agreed to use a single track approach to provide comprehensive audits to all eligible farm customers and will not require customers who receive audits to pay for those audits, even if they choose not to install any of the recommended measures. Stip. at

¶ 12.

22. Barton has agreed to develop and use the appropriate avoided costs, externalities and risk adjustments and T&D losses for each of the four costing periods and incorporate them into the field screening tool used by the farm program implementation contractor. Id.

23. Barton has agreed to complete implementation of this program for the forty dairy farm customers served by the Barton system by December 31, 1997. Id.

(v.) Commercial New Construction

24. Barton will use its program contained in its IRP until the statewide program design for both Act 250 and non-Act 250 projects is developed, at which time Barton agrees to consider adopting and implementing the statewide program. Stip. at ¶ 13.

(vi.) Residential High Use

25. Barton has agreed to adopt and implement a residential fuel-switching program with the same incentive structure and services approved for the Town of Hardwick in Docket 5270-HDWK-1. Stip. at ¶ 15.

26. Barton agrees that program implementation will be completed by January 1, 1997, or Barton will submit a compliance filing on that date explaining the reasons for not completing program implementation and providing a revised date for completion. Id.

27. Barton residential demand rate customers will be eligible for immediate termination of the demand ratchet as allowed by Barton's tariff. Id.

28. Barton has agreed to provide efficiency improvements for its low-income residential high-use customers through an agreement with the local weatherization assistance program, Northeast Kingdom Organization ("NEKO"). Barton will reimburse the agency and may apply for a rebate from the Weatherization Trust Fund pursuant to 33 V.S.A. § 2503. Id.

6. Barton submitted this filing on 12/18/95.

(vii.) Commercial Remodeling and Equipment Replacement

29. Barton has agreed to adopt and implement a program similar to the program approved for the Village of Hyde Park Electric Department in Docket 5270-HDPK-1. Stip. at ¶ 16.

30. Barton agrees to submit its program design by December 15, 1995⁷, and begin implementation starting January 1, 1996. Id.

31. Barton agrees that when a statewide program is designed and implemented in Vermont, Barton will consider adopting and implementing the statewide program. Id.

(viii.) Residential "Lost Opportunity" Program

32. Barton agrees that when a statewide program design is complete, Barton will consider adopting and implementing it. Stip. at ¶ 17.

(ix.) Other DSM Matters

33. Barton has agreed to provide a schedule of DSM program implementation that includes at least annual program budgets and energy and capacity impacts expected from the program. Barton will submit this schedule by December 15, 1995.⁸ Stip. at ¶ 18.

34. Barton has agreed to submit a compliance filing containing all required DSM program modifications sixty days following an Order in this Docket.⁹ Stip. at ¶ 19.

35. Barton and the Department have agreed to work cooperatively to develop plans for DSM retro-fit resource acquisition as a part of a comprehensive plan for the Barton system being developed by Barton. Barton and the Department have also agreed to consult on any other adjustments that may be necessary as a result of more aggressive DSM acquisitions. Stip. at ¶ 20.

36. Barton has agreed that the issue of load impact of DSM resources beyond the proposed DSM programs may be reopened in any applicable proceeding under 30 V.S.A. § 248. Stip. at ¶ 21.

D. Transmission and Distribution

7. Barton submitted this filing on 12/18/95.

8. Barton submitted this filing on 12/26/95.

9. Barton made this filing on 1/18/96.

37. Barton has agreed to develop transformer, capacitor and regulator acquisition programs that will enable Barton to make purchase decisions that ensure the least cost using the net present value of life-cycle societal-cost test. Stip. at ¶ 22.

38. Barton agrees that its T&D acquisition programs will conform to Attachment II to the Stipulation. Id.

39. Barton will submit completed acquisition procedures to the Board and DPS by February 1, 1996.¹⁰ Id.

40. Barton has agreed to complete the implementation plan for its distribution system upgrade and to submit the plan to the Board and the DPS within 30 days of receipt of funds for the upgrade. Stip. at ¶ 23.

E. Other Findings

41. Barton's IRP as filed, together with the Stipulation, represents a least-cost plan for the acquisition of energy-efficiency resources for Barton's customers, as required by 30 V.S.A. § 218c. Tr. 11/21/95 at 35, 37.

42. The Stipulation filed by the parties is in the best interests of ratepayers and is a necessary part of the fulfillment of the requirements for approval of this IRP. Tr. 11/21/95 at 37.

IV. DISCUSSION

Barton is one of four first-round IRPs to be settled on a consolidated basis. The Department and Barton have agreed on certain modifications to Barton's IRP and have agreed that with those modifications Barton's IRP should be approved by the Board as meeting the statutory criteria of 30 V.S.A. § 218c.

Since Barton filed its first proposed IRP in June, 1991, significant experience has been gained regarding the appropriate design for DSM programs to ensure that customers have an opportunity to implement a comprehensive package of cost-effective energy efficiency measures. Barton's current proposed IRP, as modified by the parties' Stipulation, incorporates many of the analytical methodologies and program designs adopted by other Vermont utilities. Barton has met most of the compliance filing deadlines established in the Stipulation. Due to the start of program implementation in January 1996, Barton filed its descriptions of DSM program modifications well ahead of the schedule called for in the Stipulation. However, in a letter filed on March 27, 1996, the DPS states that there are several flaws in the methodology that Barton used to screen its largest (in terms of energy and dollar

10. Barton has not made this filing to date.

savings) DSM program, residential fuel-switching. The DPS maintains that the program may have positive net societal benefits when screened properly.

Due to the large impact that the residential fuel-switching program has on Barton's overall savings and ultimate cost-effectiveness of all its DSM programs, I recommend that the Board require Barton to make an additional compliance filing to resolve the concerns identified in the DPS's letter. DPS letter of 3/27/96; Barton filings of 12/26/95, 4/12/96. Barton should make that filing within two weeks of the date of this Order. As specified in the parties' Stipulation, the DPS shall file comments on Barton's filing and may request that the Board resolve any disputes. See Stip. at ¶ 25.

I conclude, based on the evidence in this Docket, that Barton's IRP, as modified by the parties' Stipulation, is a least-cost plan that will acquire all cost-effective DSM pursuant to 30 V.S.A. § 218c and the Board's Order in Docket No. 5270.

I recommend that the Board approve Barton's IRP as modified by the parties' Stipulation. In addition, the Board should leave this Docket open until Barton has made all its compliance filings and any concerns raised by the DPS with those filings are resolved.

The foregoing is hereby reported to the Public Service Board in accordance with the provisions of 30 V.S.A. § 8. Although the parties have waived their right to comment on this Proposal for Decision in accordance with 3 V.S.A. § 811, this PFD has been served on all parties with an opportunity for them to file comments and request oral argument before the Board.¹¹

DATED at Montpelier, Vermont, this 28th day of May, 1996.

s/Paul Peterson

11. On May 10, 1996, the DPS filed comments, but did not request oral argument. Barton did not make any filing. I have modified the PFD to accurately reflect the DPS's letter of 3/27/96 which states that changes to Barton's screening methodology for residential fuel-switching programs "may" result in the programs screening with net societal benefits.

Paul Peterson, Esq.
Hearing Officer

V. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings, conclusions and recommendations of the Hearing Officer are hereby adopted.
2. Barton's IRP is approved as modified by the parties' Stipulation.
3. Barton shall submit a compliance filing within two weeks of the date of this Order that addresses the concerns raised by the DPS regarding the cost-effectiveness of Barton's DSM programs.
4. Barton shall submit a compliance filing regarding its Residential Direct Install Program by January 1, 1997.
5. Barton shall submit a compliance filing by January 1, 1997, regarding the implementation of its Residential High-Use Program.
6. Barton shall file an implementation plan for its distribution system upgrades, as a compliance filing, no later than 30 days after receipt of funds for the upgrades.
7. This Docket shall remain open until all the above compliance filings have been made, the DPS has filed comments on those filings, and any disputed issues are resolved.
8. Barton shall file annual DSM reports on April first of each year, beginning in 1996.
9. Barton shall file its next IRP on or before May 20, 1998.

DATED at Montpelier, Vermont, this 28th day of May, 1996.

<u>s/Richard H. Cowart</u>)	
)	PUBLIC SERVICE
<u>s/Suzanne D. Rude</u>)	
)	BOARD
)	
<u>s/David C. Coen</u>)	OF VERMONT

OFFICE OF THE CLERK

FILED: MAY 28, 1996

ATTEST: s/Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board of any technical errors, in order that any necessary corrections may be made.

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.